

# **Public Notice**

Public Notice No. 08-55

Date: August 29, 2008

Nashville District

Application No. 2007-02288 Expires: September 29, 2008

Please address all comments to: Nashville District Corps of Engineers, Regulatory Branch (Attn: Tammy R. Fudge), PO Box 218, Grand Rivers, KY 42045 tammy.r.fudge@usace.army.mil

# JOINT PUBLIC NOTICE US ARMY CORPS OF ENGINEERS AND STATE OF KENTUCKY

SUBJECT: Proposed Discharge of Dredged and Fill Material into waters of the United States associated with US 68/SR 80 improvements in Trigg County, Kentucky.

TO ALL CONCERNED: The application described below has been submitted for a Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (CWA). Before a permit can be issued, certification must be provided by the Commonwealth of Kentucky, Natural Resources and Environmental Cabinet, pursuant to Section 401(a)(1) of the CWA, that applicable water quality standards will not be violated. By copy of this notice, the applicant hereby applies for the required certification.

APPLICANT: Kentucky Transportation Cabinet

Kentucky Transportation Office Building

200 Mero Street

Frankfort, KY 40622

LOCATION: The project begins at the west approach of the Henry Lawrence Memorial Bridge over Lake Barkley and extends approximately 4.2 miles west through Land Between the Lakes, Trigg County, Kentucky. A disposal area and four excavation sites are located on USACE property located along the Little River, Hopson Creek, Donaldson Creek and Dry Creek embayments of Lake Barkley in Trigg County, Kentucky as shown on the attached Location Map.

DESCRIPTION: The Kentucky Transportation Cabinet (KYTC) proposes to expand existing US 68/KY 80 to a four lane with three bifurcated segments within the described 4.2 mile section, known as Buildable

Unit #2 East. The first bifurcation begins at the western terminus and extends down to the Golden Pond area, with the westbound lane following existing US68/KY80 and the eastbound lane partially following Trail 161. The second bifurcation is between Golden Pond and Oakley Hollow and the third bifurcation extends from Oakley Hollow to the project terminus at Lake Barkley.

Buildable Unit #2 East was studied as part of the US 68/KY 80 Aurora to Cadiz Environmental Assessment and 4(f) Evaluation prepared for approximately 17 miles of proposed roadway improvements from Aurora to Canton, in Marshall and Trigg counties, respectively. The Finding of No Significant Impact (FONSI) received final FHWA approval on October 24, 2006.

#### Stream Impacts

Buildable Unit #2 East would impact one perennial, ten intermittent and eleven ephemeral stream segments within four 14-digit HUC watersheds. Table 2.1 provides a breakdown of linear impacts by 14-digit HUC watershed and stream type.

Table 2.1. Summary of Stream Impacts by Watershed and Stream Type

14-digit HUC	Watershed Name	Perennial	Intermittent	Ephemeral	Total
05130205140300	Crooked Creek		563 l.f.	268 l.f.	831 l.f.
05130205140190	Elbow Creek	259 l.f.	820 l.f.	2,461 l.f.	3,540 l.f.
05130205140200	Long Creek		235 l.f.	98 l.f.	333 l.f.
05130205140240	Cumberland River		408 l.f.		408 l.f.
To	259 l.f.	2,026 l.f.	2,827 l.f.	5,112 l.f.	

A description of the proposed impacts for each site within Buildable Unit #2 East are attached in Table 2.2.

#### Stream Mitigation

Compensatory mitigation for stream impacts is proposed through an In Lieu Fee payment to the Kentucky Department of Fish and Wildlife Resources (KDFWR). Based on a \$100/linear foot debit, the resulting compensatory mitigation proposed for stream impacts associated with Buildable Unit #2 East is an In Lieu Fee payment of \$96,900.00.

#### Wetland Impacts

Wetland impacts within the Cumberland River drainage were confined to a single complex of four palustrine forested areas associated with Oakley Hollow Creek south of the existing US 68/KY 80. Utilizing the old US 68/KY 80 roadway for the eastbound bifurcated travel lanes will necessitate the placement of fill within 1.17 acres of the wetland complex.

## Wetland Mitigation

Compensatory mitigation for the 1.17-acre impact to the Oakley Hollow Creek palustrine forest wetland complex is proposed through an In Lieu Fee payment to the KDFWR of \$84,240.00. The KDFWR funds associated with this project would be used to construct a wetland restoration/creation project within LBL. KYTC proposes In Lieu Fee compensatory wetland mitigation based a 2:1 impact/replacement ratio with a \$36,000 cost per acre.

Lake Barkley Power Storage and Flood Control Storage Loss
The east end of the project requires that the terminus be
coincident with the causeway approach to the Henry R. Lawrence
Memorial Bridge and therefore requires additional fill material
along existing US 68/KY80 and old US 68/KY 80 to accommodate the
bifurcated eastbound and westbound travel lanes. Table 2.4
illustrates the volume (cubic yards) of required fill below these
elevation ranges.

Table 2.4. Fill Volumes for Lake Barkley

	Elevation Ranges	Lake Barkley	Totals
	(feet)	(cubic yards)	(cubic yards)
Flowage Easement	375-378	46,903	46,903
Flowage Easement	373-375	47,896	
requiring mitigation	371-373	46,437	
(i.e. Flood Control	369-371	43,105	
Storage)	367-369	36,333	
	365-367	33,911	272 276
	363-365	26,021	273,376
	361-363	21,544	
	359-361	18,129	
Summer Pool	357-359	15,911	
(Power Storage)	355-357	13,825	34,643
	354-355	4,907	
Winter Pool	<354	26,518	26,518

Fill material below the ordinary high water elevation (359') of Lake Barkley would total 10.2 acres.

Lake Barkley Power Storage and Flood Control Storage Loss Mitigation/Offset Sites. To replace the lost power storage and flood control storage volume, four sites along Lake Barkley embayments were selected. Each site is owned by the USACE and requires tree clearing and excavation of soil material between the elevations of 354 and 375 feet to meet the offset compensation goal. An inventory of streams and wetlands within each of the four offset sites is included in the following section.

Little River: The Little River site is located on the south side of the Little River embayment within the floodplain across the river from the town of Cadiz. The entire site is located on property owned by the USACE and is approximately 31.1 acres in size. Approximately 75 feet along the left bank of the Little River will be excavated down to an elevation of 352' to create a hydrologic connection between the river and the deep water features of the excavation site. The Little River site stream impacts would be limited to installation of a 16 foot long 48" CMP culvert into an intermittent stream (20' linear feet of impact) and relocation of 251 linear feet of an intermittent stream required for excavation of the center field. The area will serve as both a wildlife and waterfowl management area. A compensatory wetland mitigation site will also be constructed here and is described in the next section.

The Donaldson Creek Boat Ramp site is located at the Donaldson: Donaldson Creek Public Use Area on the south side of the Donaldson Creek embayment of Lake Barkley. This proposed design would grade the existing parking and ramp area and create a new boat ramp and parking facility to the southeast. Approximately 7.5 acres would be disturbed through excavation. Hill slope excavation at the Donaldson boat ramp site would remove 173 linear feet of intermittent stream and 377 linear feet of ephemeral stream from the landscape. Drainage would be maintained through a 529 linear foot feature along the southeast side of the new boat ramp parking The proposed plan would also generate an area of approximately 5.1 acres at elevations between 359 and 360 feet that would support moist soil/wetland species. Trees and shrubs adapted to wet conditions would be planted up to an elevation of 360 feet, while upland trees and shrubs would be planted on the 3:1 sideslopes.

Canton: The Canton Quarry site is located on the north side of Old Canton Road and south of Hopson Creek. The entire site is located on property owned by the USACE and leased by Rogers Group, Inc. for the Canton Quarry. The site is approximately 5.1 acres in size, all of which would be disturbed through excavation. Stream impacts at the Canton quarry site would be limited to the permanent loss of 65 linear feet of intermittent stream that emerges from a culvert under Old Canton Road. The proposed plan would generate an area of approximately 4.1 acres at an elevation between 359 and 360' that would support moist soil/wetland species. Trees and shrubs adapted to wet conditions would be planted up to Elevation 360', while upland trees and shrubs would be planted on the 3:1 sideslopes.

Linton: The Linton site is located between KY 164 and an abandoned roadbed near the community of Linton along the north side of the Dry Creek embayment. The entire site is located on property owned

by the USACE and is immediately east of the Linton Recreation Area. The site extends approximately 1.1 miles east of the boat ramp to the USACE gate across the old roadbed and ranges in width from approximately 35 feet to 170 feet. The site boundaries are approximately 14.7 acres in size; however, disturbance due to excavation and re-grading would be limited to approximately 2.2 acres at two locations within the working boundary. Stream impacts at the Linton site have been avoided. The proposed plan will generate an area of approximately 0.40 acre at an elevation of 359' that would support moist soil/wetland species. Trees and shrubs adapted to wet conditions would be planted up to an elevation of 360', while upland trees and shrubs will be planted on the 3:1 sideslope to the north.

Cumulative Stream Impacts Associated with Mitigation/Excavation Sites. An estimated total of 2,056 linear feet of stream (1,679 feet intermittent and 377 feet ephemeral) was identified within the four mitigation/offset sites. Of this, 945 linear feet (568 feet intermittent and 377 feet ephemeral) would be affected by the proposed excavation. Table 5.3 provides a cumulative summary of stream impacts for the excavation sites.

Table 5.3. Summary of Stream Impacts for Mitigation/Excavation Sites by Watershed

14-digit HUC	Watershed Name	Perennial	Intermittent	Ephemeral	Total
05130205200140	Little River	0	271	0	271
05130205140250	Hopson Creek	0	65	0	65
05130205170040	Donaldson Creek	0	173	377	550
05130205140050	Dry Creek	0	0	0	0
Total		0	509	377	886

Wetland Impacts Associated with Mitigation/Excavation Sites
An estimated total of 2.06 acres of jurisdictional wetlands would
be affected through excavation of the offset sites. Table 5.4
provides a cumulative summary of wetland impacts associated with
the excavation sites.

Table 5.4. Summary of Wetland Area Impacts for Excavation Offset Sites by Watershed and Wetland Type

14-digit HUC	Watershed Name	PFO	PSS	PEM	Total
05130205200140	Little River	0.07	0.53	1.39	1.99
05130205140250	Hopson Creek	0.00	0.00	0.00	0.00
05130205170040	Donaldson Creek	0.06	0.00	0.00	0.06
05130205140050	Dry Creek	0.00	0.00	0.01	0.01
Total		0.13	0.53	1.40	2.06

Compensatory Wetland and Stream Mitigation for Excavation Impacts
The wetlands proposed for impact at the Little River, Donaldson
boat ramp and the Linton sites are proposed to be mitigated through
In-Kind replacement at the Little River site. Through excavation
down to normal summer pool elevation an area of approximately 4.2
acres would be converted to forested wetland habitat. Table 6.1
indicates the wetland impacts by vegetative community type,
recommended ratios for determining minimum target acreage and the
minimum acreage goal.

Table 6.1. Proposed Mitigation Ratios and Target Acreage for Compensatory Offset Site Impacts

Offset Site	Community type impact	Mitigation Ratio	Target Mitigation Acreage
Little River	PEM1 = 1.03  acre	1:1	1.03 acre
	PSS1 = 0.001  acre	2:1	0.001 acre
	PEM1 = 0.362  acre	1:1	0.36 acre
	PSS1 = 0.526  acre	2:1	1.05 acre
	PFO1 =0.070 acre	3:1	0.21 acre
Donaldson	PFO1 = 0.06 acre	3:1	0.18 acre
Linton	PEM = 0.01 acre	1:1	0.01 acre
Total	2.06 acre		2.85 acre

The functions of the 173 feet of intermittent and 377 feet of ephemeral stream impacted at the Donaldson boat ramp site will be mitigated via the construction of 529 feet of a flat bottom channel along the southern edge of the new proposed parking lot.

The functions of the 250 feet of intermittent stream LR0301 impacted through excavation will be mitigated through reestablishment of approximately 206 linear feet of flat bottom meandering channel though the northern end of Area D.

## USACE Real Estate Property and Easement at Lake Barkley

The US 68/KY 80 project will require construction within USACE fee simple property and flowage easement associated with Lake Barkley. The project will require the use of 5.42 acres of USACE fee simple property (below 359' elevation) and 40.03 acres of USACE flowage easement (between 359 and 378' elevation).

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of

important resources. The benefit which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

An Environmental Assessment will be prepared by this office prior to a final decision concerning issuance or denial of the requested Department of the Army Permit.

The KYTC coordinated with the Kentucky Heritage Council (KHC) during evaluation of the 17-mile US 68/KY 80 improvement project. In a letter dated June 19, 2007 the KHC indicated based on a review of "An Archaeological Assessment of the Proposed US 68/KY 80, Land Between the Lakes, Trigg County, Kentucky Item Number: 1-180.55" they concurred with the findings regarding no evidence of prehistoric or early historic occupation in the project area. Based on this information, the Corps has determined the road construction portion of the project, as proposed, has no potential to affect historic properties eligible for listing in the National Register of Historic Places. This review constitutes the full extent of cultural resources investigations unless comment to this

notice is received documenting that significant sites or properties exist which may be affected by this work, or that adequately documents that a potential exists for the location of significant sites or properties within the permit area. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

Results of archaeological investigations conducted on the four mitigation/offset sites are being finalized and will be coordinated with the KHC.

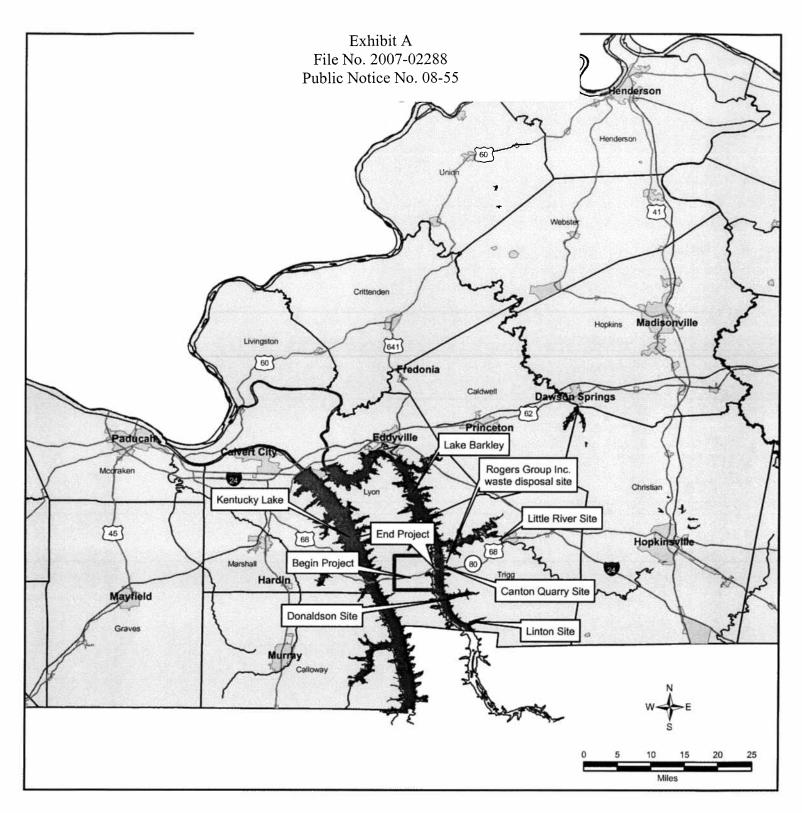
Coordination between the KYTC and USFWS resulted in an update to the Biological Assessment (BA) prepared for US 68/KY 80 as part of the FHWA NEPA review of the project. The updated BA, completed summer of 2008, also included investigations covering the four compensatory offset sites and the waste disposal site associated with mitigation for the roadway fill requirements within USACE power control and flood control areas along US 68/KY 80. of concern identified by the USFWS for the project included the gray bat, Indiana bat, rink pink mussel, orangefoot pimpleback and Price's potato bean. Although the bald eagle is no longer covered under the Endangered Species Act, and assessment of potential project impacts was conducted in accordance with the National Bald Eagle Management Guidelines and submitted to the USFWS. updated BA documents the potential direct and indirect impacts to each species and provides a determination of effect in accordance with Section 7 of the ESA. It is currently under internal review by the KYTC and will be submitted to the USFWS in early September.

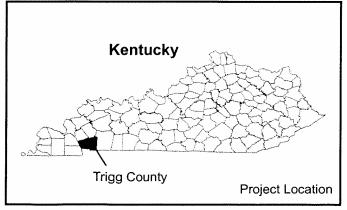
Other federal, state, and/or local approvals required for the proposed work are as follows: Water quality certification from the Commonwealth of Kentucky in accordance with Section 401(a)(1) of the CWA.

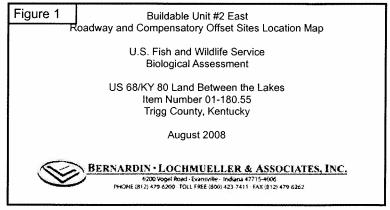
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

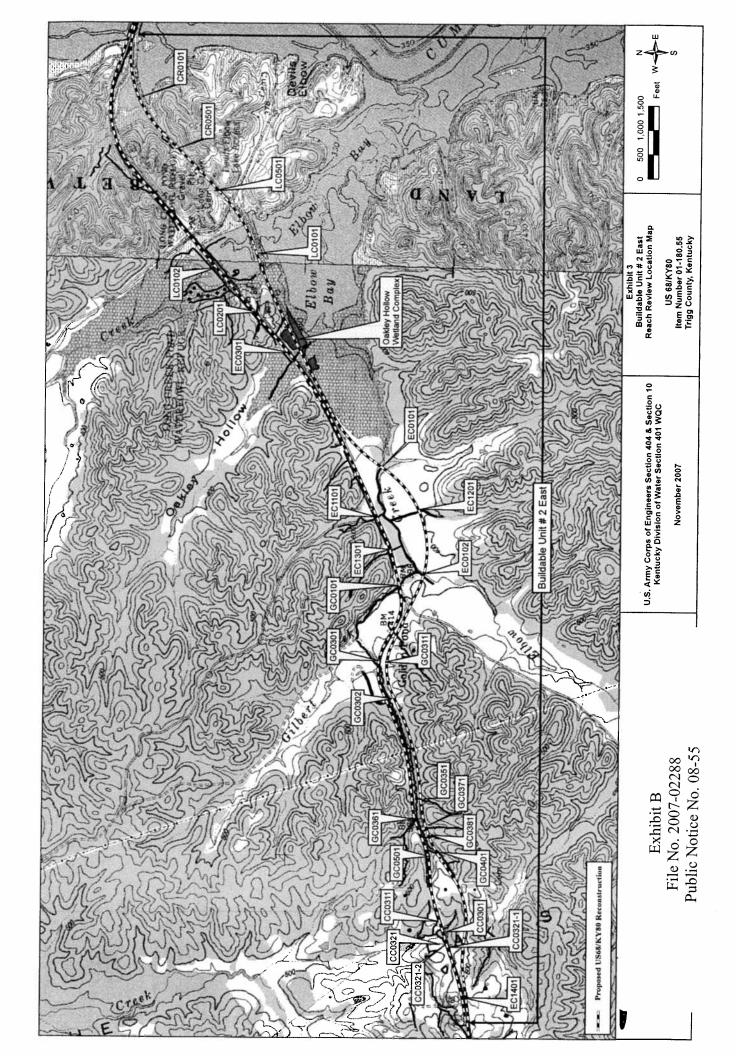
Written statements received in this office on/before September 29, 2008 will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Tammy R. Fudge, at the above address, telephone (270) 362-7523, or tammy.r.fudge@usace.army.mil.

If you received this notice by mail and wish to view all of the diagrams, visit our web site at: <a href="http://www.lrn.usace.army.mil/cof/notices.htm">http://www.lrn.usace.army.mil/cof/notices.htm</a>, or contact Tammy Fudge at the above address or phone number.









Section 404 and Section 10 - United States Army Corps of Engineers, Section 410 - Kentucky Division of Water US 68KY 80 Reconstruction Trigg County, Kentucky, Item No. 1-180.55

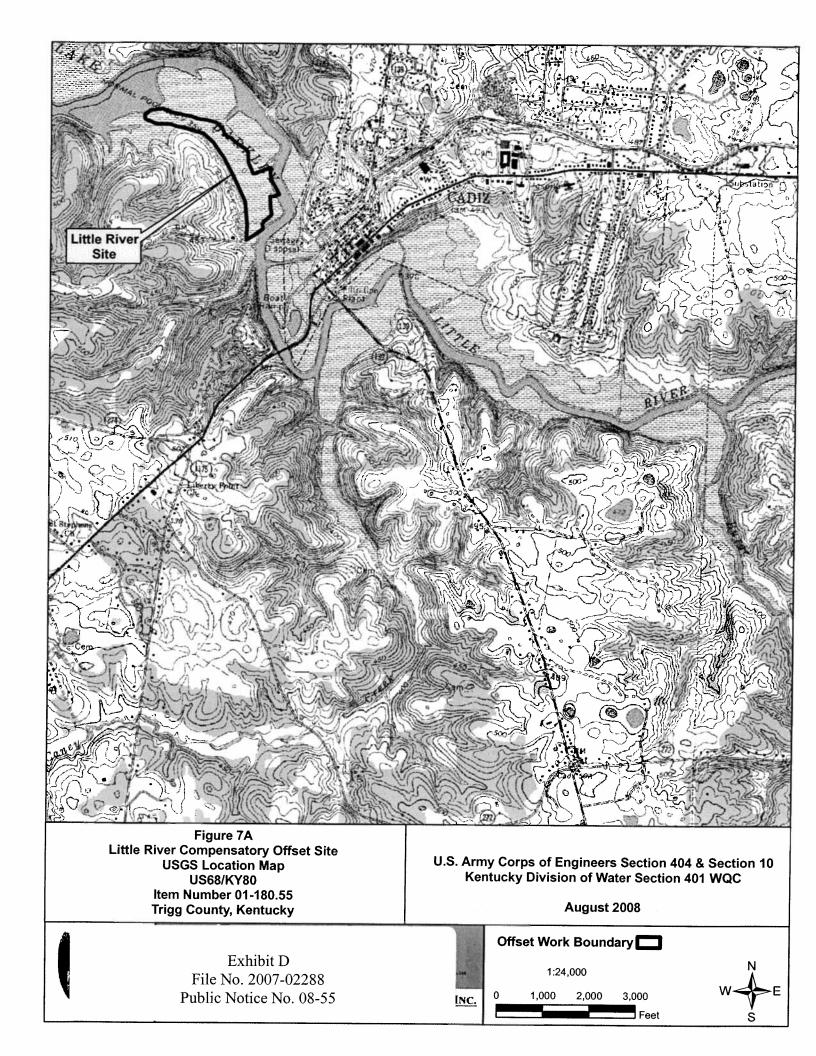
Table 2.2. Cumulative Inventory Matrix of Streams Impacted by Buildable Unit #2 East of the US68/KY80 Project

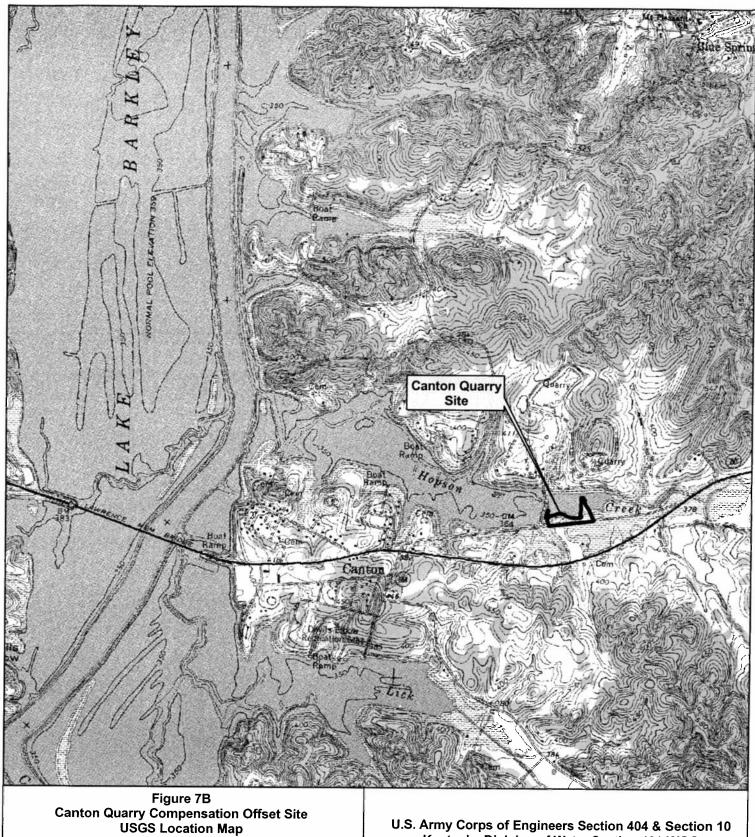
USACE File No. 2007-02288 KDOW AI No. 6816

KDOW Mitigation (linear ft)									259	122	139	96		132	901	115																		090
USACE Mitigation (linear ft)																													408					408
Watershed Size (acre)	3.37	2.6	5.7	4.4	1,3		3379.0	2344.0	565.0	103.4	105.0	34.0	1.6	736.0	166.0	152.0	7.1	3.7	14.4	30.9	6.2	8.7	12.8		5.0	6.7			17.9					
Percent Impact w/in Watershed ROW Size (acre)	105	83	72	123	100	1 F 1.5	0	0	109	112	71	123	80	77		ro C	100	94	96	87	91	68	100		72	200	2		29					
Area w/in ROW (ft)	9000	0.004	0.011	0.015	0.008		0.000	0.000	0.049	0.025	0.025	0.032	0.012	0.062		1.086	0.101	0.016	0.026	0.014	0.010	0.011	0.039	100	0.005	0.016			0.079					
Length w/in ROW (#)*	900	121	162		167		198	214	270	137	196	115	175	171		4505	879	231	224	126	190	208	278		136	235			900	2983	7196	270	10449	
Stream Impact Area (acre)	0200	0.003	0.008	0.012	0.008		000.0	0.000	0.047	0.022	0.018	0.026	0.010	0.048	0.022	0.031	0.101	0.015	0.025	0.013	600.0	0.010	0.036		0.004	0.016			0.036	0.220	0.272	0.047	0.538	
Total Impact Length (ft)	173	101	116		167		0	0	529	122	139	96	140	132	106	115	879	217	214	110	173	186	d		86	235				2827	2026	259	5112	
Existing Daylight Length (ft)	173	101	116	177	167		0	0	259	122	139	96	140	132	106	115	879	217	214	110	173	186	601		98	235			31					
Existing Encapsulate d Length(ft)	67			97					34	32		46		42	44								51						92					
Impact Type	cuiver	channel	change	channel	channel	Cilalida	bridge	bridge	culvert	culvert	culvert	culvert	filling	culvert	culvert	cuivert	channel	culvert	cuivert	cuivert	culvert	culvert	channel		culvert	channel	cnange	channel	change					
Stream name	Crooked Creek UT#3	Crooked Creek UT#4	The state of the s	C#10 Ceek O #	Crooked Creek UT#6		Elbow Creek		Oakley Hollow Creek	Elbow Creek UT#1	Elbow Creek UT#2	Elbow Creek UT#3	Elbow Creek UT#4	Gilbert Creek		Gilbert Creek 1.1T#2		Gilbert Creek UT#3	Gilbert Creek UT#4	Gilbert Creek UT#5	Gilbert Creek UT#6	Gilbert Creek UT#7	Gilbert Creek UT#8		Long Creek UT#1	Long Creek UT #3			Cumberland River UT#2					
Relevant Reach ID	RR:CC030	RR:CC031	RR:CC032	RR:CC0321-1	7		RR:EC010						T	RR:GC010	PR-GC030							RR:GC038	RR:GC050		RR:LC020	RR:LC050			KK:CK090					
Relavent Reach Designation	RPW	non-RPW	RPW	RPW	non-RPW		RPW		WGA	RPW	MPW	RPW	WE	KPW	Wda		non-RPW	non-RPW	non-RPW	RPW	non-RPW	non-RPW	non-RPW		non-RPW	RPW		,400	AF V					
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RBP/ Stream Quality	95/Poor	SN	93/Poor	94/Poor	S.		134/Poor	120/Poor	129/P00r	100/Poor	65/F00F	100/P00r	2000	30/Poor	118/Poor	116/Poor	SN	SN	SN	99/Poor	2 2	2	SN		SN	94/Poor		04/000	100 L/#6	mpact	Impact	npact		
Stream Type (P, I or E)	_	ш		-	W		_ -	- 0	١.	- -	- -		u -	- -	-	-	ш	ш	Ш	- -	u u	u	Е		ш			_	-	otal Area of	otal Area or	tal Area of Ir	Impact	ulrea
Site Station	Sta. 6019+50	Sta. 6021+50	Sta. 6018+00	Sta. 6016+50	Sta. 6017+00	EDON COME DE COLOR COLOR	Sta. 5123+00	Sta. 3062+22 and	Sta. 5151+94	Sta. 3025+32	Cto 2017+00	Sta 6006+75	Sty 201046E	Sta. 3010+63	Sta. 60/6+06	Sta. 5069+68	Sta. 5030+00	Sta. 5076+38	Sta. 5047+95	Sta. 6042+80	Sta 5030+05	Sto 6034±00 to	Sta, 6036+50	Ang Creek (5) 3020 (402) d	Sta. 3074+00	Sta. 5192+00	Temperature Files Designation	Sta. 5198+00 to	Sta. 5200+00	Total Ephemeral Linear Feet and Total Area of Impact	lotal intermittent Linear Feet and Total Area of Impact	Total Perennial Linear Feet and Total Area of Impact	Total Linear Feet and Total Area of Impact	reet or minganon red
Site	CC0301	CC0311	CC0321	CC0321-1	CC0321-2	Ellow Com	EC0101	EC0304	10000	101.01	EC1301	EC1301	50101	20000	90000	GC0302	GC0401	GC0311	GC0351	GC0361	GC037 1	10000	GC0501	Long Cheak	LC0201	LC0501	S. Contraction	CR0501		rotal Epner	T ( i E	Total Peren	Total Linear	I OLA! EIIIOA:

<sup>\*</sup> Lengths with unshaded cells include only the daylighted portion, while shaded cells include currently encapsulated sections of the stream NS = not scored

Exhibit C File No. 2007-02288 Public Notice No. 08-55





US68/KY80 Item Number 01-180.55 **Trigg County, Kentucky** 

U.S. Army Corps of Engineers Section 404 & Section 10 Kentucky Division of Water Section 401 WQC

August 2008

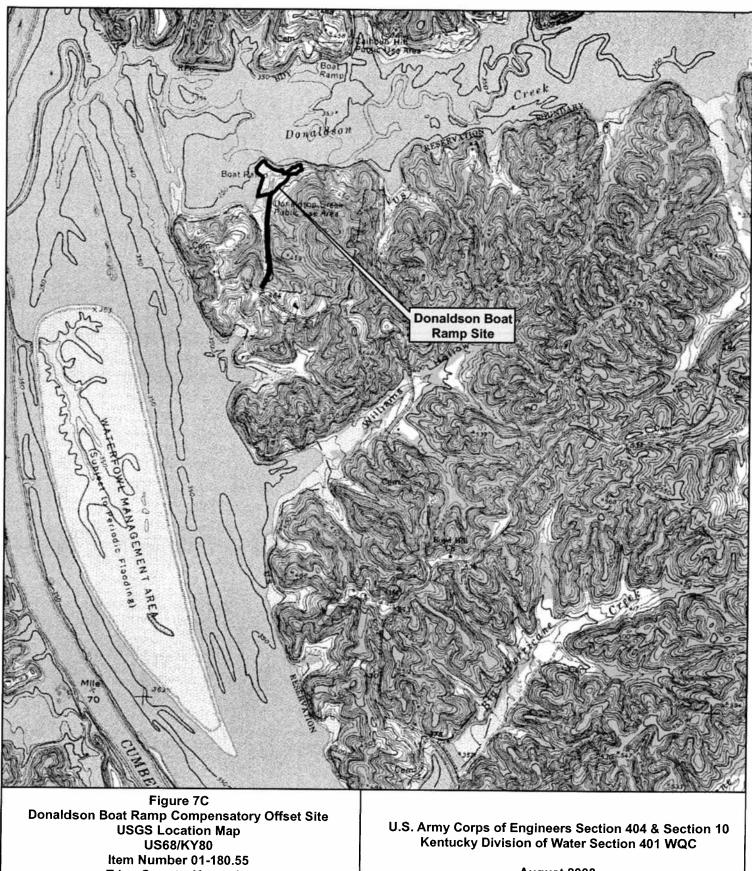


Exhibit E File No. 2007-02288 Public Notice No. 08-55 Offset Work Boundary

1:24,000

3,000 1,000 2,000 Feet





**Trigg County, Kentucky** 

August 2008

Exhibit F File No. 2007-02288 Public Notice No. 08-55 Offset Work Boundary

1:24,000

NC.

2,000 3,000 1,000

